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ABSTRACT

An analysis of intrasentential codeswitching patterns that refutes a common explanation is presented. It is suggested that the Matrix Language-Frame model, which claims codeswitching to be entirely a matter of sentence production, is inadequate to account for a common but hitherto unexplained phenomenon, the occurrence of "dummy" verbs under certain conditions in codeswitch utterances. It is suggested further that this phenomenon has a natural explanation within minimalist linguistic theory of grammatical competence. It is concluded that intrasentential codeswitching is not purely a performance or production phenomenon, but also involves aspects of linguistic competence. Contains 22 references. (MSE)

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Codeswitching, Grammar, and Sentence Production: The Problem of Dummy Verbs

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Two distinct approaches have been taken to the explanation of syntactic constraints on intrasentential code-switching (CS) in recent work. Under the G(rammar)-approach (e.g., Di Sciullo, Muysken, and Singh 1986; and Belazi, Rubin, and Toribio 1994), conditions on CS are sought within the theory of grammar and the grammars of the languages involved in a given case of CS. A particularly strong and, hence, significant form of the P(roduction)-approach (Myers-Scotton 1993) would take the position that conditions on CS are imposed entirely by processes of speech production and that the grammars of the two languages show precisely the same structure for switched as for unswitched utterances. The purpose of this paper is to present evidence that this strong version of the P-approach (grounded in the general production models of Garrett 1990 and Levelt 1989) is insufficient to account for a widely found but hitherto unexplained phenomenon -- the occurrence of "dummy" verbs under certain conditions in CS utterances -- whereas a G-approach account in terms of the notions of syntactic derivation, f(unctional)-selection (Abney 1987), and economy of derivation (Chomsky 1991) provides the basis for a genuine explanation.

1. Introduction

As has often been observed, bilinguals in some bilingual societies frequently use both of their languages in a single sentence. It is also the case that fluent, competent bilinguals are able to make reliable well-formedness judgements about the utterances that result from such intrasentential code-switching (CS). Examples of such judgements are given in examples (1).

1. English-*Spanish*.

   a. (= Belazi, Rubin, and Toribio 1994, (10)a, (10)c).

      i. The professor said *que el estudiante habia recibido una A*.

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that the student had received an A.

ii. *The professor said that *el estudiante habia recibido una A* .

b. (= Belazi *et al.*, 1994, (23))

They used to serve *bebidas alcoholicas en ese restaurante* .

drinks alcoholic in this restaurant

'They used to serve alcoholic drinks in this restaurant.'

c. (adapted from Belazi *et al.*, 1994, (26))

*Dance-*amos* *cha-cha* .

-PRES.1.PL

'We dance the cha-cha.'

In many cases of CS, it is possible to identify one of the languages as playing a more dominant role than the other. As is customary in much of the CS research literature, we will refer to the dominant language in CS utterances as the "matrix language" and to the non-dominant language as the "embedded language." Thus in all four of the sentences in (1), English is the matrix language and Spanish is the embedded language.

CS phenomena have received extensive research treatment over the last twenty years. (See Bhatia and Ritchie, forthcoming, for critical review). This research has resulted in a variety of empirical generalizations including, for example, Joshi's Closed Class Constraint given under (2.a.) below (examples under 2.b. and 2.c.) and Poplack's Free Morpheme Constraint under (3.a.) (examples under 3.b.).

2. a. The Closed Class Constraint (Joshi, 1985: 194)

Closed class items (e.g., determiners, quantifiers, prepositions, possessive, Aux, Tense, helping verbs, etc.) cannot be switched.

b. Marathi-*English* .

i. kaahi *chairs* . 'some chairs'

some

ii. **some* khurcyaa. 'some chairs'

c. Marathi-*English* .

i. kaahi *chairs* war. 'on some chairs'

some on

ii. *kaahi khurcyaa *on* . 'on some chairs'

some chairs

3. a. The Free Morpheme Constraint (Poplack, 1980: 585)

Codes may be switched after any constituent provided that constituent is not a bound morpheme.

b. Spanish-*English* .

i. **run* -eando 'running'

ii. comin-ando 'walking'

The search for general explanations of descriptive generalizations of this kind in terms of independently justified principles of language structure and use has taken two distinct forms. One approach, represented by, e.g., Di Sciullo, Muysken, and Singh (1986) and Belazi *et al.* (1994), attempts to explain restrictions on CS in terms of the theory of linguistic competence -- Government-Binding theory (Chomsky 1981) in the case of Di Sciullo et al. and the Minimalist Program (Chomsky, 1993, 1995) in the case of Belazi *et al.* We return to Belazi et al. for discussion later.

Another approach, based on the claim that CS is entirely a matter of sentence production, is found most explicitly in the form of Myers-Scotton's Matrix Language-Frame (MLF) Model (e.g., Myers-Scotton 1993), grounded in the theory of sentence production as represented in the work of Garrett (1988, 1990), Levelt (1989), and others. Her position is stated in a strong form in (4).

4. ...Codeswitching utterances everywhere conform to the grammars of their participating languages, subject only to the added constraints of the [production-based] Matrix Language-Frame Model... (Myers-Scotton, 1993: 3)

Myers-Scotton's approach is attractive for both conceptual and empirical reasons. Conceptually, it captures the intuition, voiced widely in the literature, that codeswitching is purely a matter of linguistic performance, leaving unaffected the bilingual's grammatical competence in each of his/her languages; and it does so within an independently justified account of sentence production. Empirically, Myers-Scotton's model provides a account of Joshi's Closed Class Constraint and a number of other features of CS utterances that have been widely reported in the literature but have not received an explanatory treatment.

The purpose of this paper is to argue that, in spite of its success in providing a principled account of a certain range of CS phenomena, Myers-Scotton's MLF Hypothesis does not appear to provide a natural account of a phenomenon widely observed in CS, whereas current assumptions within the theory of linguistic competence do provide such an account. As a consequence, we conclude that Myers-Scotton's strong P-approach cannot be sustained and CS phenomena involve aspects of grammatical competence as well as performance.

The phenomenon in question is the occurrence of so-called "dummy verbs" in CS utterances in some CS language pairs. Consider the examples in (5) from Hindi-English CS where Hindi is the matrix language and English is the embedded language.

5. Monolingual Hindi and Hindi-*English* (Bhatia and Ritchie, forthcoming)

a. i. merii patnii saaRii cun -egii
my wife Saree choose-FUT.3.SG.FEM.
'My wife will choose a Saree.'

ii. *merii patnii saaRii *choose* -egii
my wife Saree choose -FUT.3.SG.FEM.

b. i. *merii patnii saaRii cun-naa **kar**-egii
-INF do-

ii. merii patnii saaRii *choose* **kar**-egii
'My wife will choose a Saree.'

The examples in (5.a.ii) and (5.a.i.), respectively, show that when the Tense/Agreement element *-egii* is affixed directly to a codeswitched verb (in this case English *choose*) the result is ill-formed, whereas, as expected, the affixation of such an element to the Hindi stem *cun-* 'choose' causes **no** ill-formedness. Example (5.b.ii.) shows that the presence of the stem of the semantically light verb *kar-naa* 'to do' (in boldface) allows the occurrence of the switched verb *choose* , the Tense/Agreement element *-egii* being attached to *kar-* . A number of other language pairs that exhibit this feature are given in (6) along with references and examples; the dummy verb in each case is in boldface.

6. a. Turkish-*Dutch* (Boeschoten and Verhoeven, 1985)

foturaf *kijken* **yapi**-yor -lar

photograph look-at do -PRS-PL.

'They are showing photographs.'

b. Navajo-*English* (Canfield 1980)

Nancy bich'i' *show* **anileeh**

Nancy to.3RD make.2ND

'(You) show it to Nancy.'

c. Warlpiri-*English* (Bavin and Shopen 1985)

grow **jarri** -mi

become-NONPAST.

hold **mani**

make

In addition to these language pairs, those listed in (7) with references are also reported in the literature as exhibiting this structure (matrix language first).

7. Tamil-English (Annamalai 1978)

Japanese-English (Stanlaw 1982)

Philippine Creole Spanish -English (Molony 1977)

Philippine Creole Spanish -Tagalog (Molony 1977)

Punjabi-English (Romaine1989)

Spanish-English (Pfaff 1976)

Shona-English (Myers-Scotton 1993)

In some of these cases the dummy verb structure appears to be less stable than in others. Because the data in Hindi are relatively clearcut, we limit ourselves to this case, assuming that our analysis will extend in some form to other cases.

2. Dummy Verbs, the Functional Head Constraint, and the Economy of Derivations

We turn first to an analysis of dummy verbs in CS of the sort exemplified above in terms of the theory of linguistic competence -- particularly in terms of Chomsky (1991, 1993).

Before returning to the basic examples in (5) we will consider a related structure in Hindi -- the structure traditionally termed the Conjunct Verb structure as exemplified in (8) and (9) below with both monolingual Hindi and CS exemplars.

8. a. Monolingual Hindi.
merii patnii [$_{NP}$ saaRii kii pasand] kar-egii
my wife Saree of liking do -FUT.3.SG.FEM.
'My wife will take a liking to a Saree.'

b. CS Hindi-*English* .
merii patnii [$_{NP}$ saaRii kii *choice*] kar-egii
my wife Saree of choice do -FUT.3.SG.FEM.
'My wife will choose a Saree.'

9. a. Monolingual Hindi.
ye davaii [$_{AP}$ mujh ko acchaa] kar-egii

this medicine me to good do -FUT.3.SG.FEM.

'This medicine will make me better.'

b. CS Hindi-*English* .

ye davaii [$_{AP}$ mujh ko *better*] kar-egii

this medicine me to better do -FUT.3.SG.FEM.

'This medicine will make me better.'

The examples in (8) and (9) exhibit the main properties of the Conjunct Verb structure. In each case a NP or AP functions as the complement of the verb *kar-naa* . Traditionally, the head of the complement is termed the Pre-verb of the construction and the form of *karnaa* is termed the Operator Verb. Hence, we may represent the structure as shown under (10).

10. Conjunct Verb Structure.

	Preverb	Operator Verb.
NP	[$_{NP}$ .....N]	kar + Tense/Agreement
NP	[$_{AP}$ .....A]	kar + Tense/Agreement

Additional Operator Verbs in this construction include other semantically light verbs like *ho-naa* 'to be,' *ban-naa* 'to be made,' *aa-naa* 'to come,' *paR-naa* 'to fall,' and *de-naa* 'to give.'

It might be thought that the *kar* -construction in (5.b.) above is a straightforward instance of the Conjunct Verb structure. However, the grammaticality values of (5.a.) and (5.b.) indicate otherwise. These examples are repeated below as (11.a.) and (11.b.), respectively, with relevant structure added.

11. a. i. merii patnii [$_{VP}$ saaRii cun]-egii

my wife Saree choose-FUT.3.SG.FEM.

'My wife will choose a Saree.'

ii. *merii patnii [$_{VP}$ saaRii *choose*]-egii

my wife Saree choose -FUT.3.SG.FEM.

b. i. *merii patnii [$_{VP}$ saaRii cun -naa] **kar**-egii

my wife Saree choose-INF do -FUT.3.SG.FEM.

ii. merii patnii [$_{VP}$ saaRii *choose*] **kar**-egii

my wife Saree choose do -FUT.3.SG.FEM.

'My wife will choose a Saree.'

As (11) indicates, if the "complement" of *kar-* in these structures is a VP and the head of the "complement" is a Hindi verb then, unlike the structures in (8) and (9), the string is ill-formed. This suggests that the status of *kar-* in (11.b.) is quite different from that of *kar-* in (8) and (9). In fact, the complementarity of the distribution of *kar-* in these structures (it is present only when a switched verb appears) suggests that it is inserted in the course of the derivation of, e.g., (11.b.ii.) to save the derivation from crashing. Let us now explore this possibility.

In accounting for the grammaticality values of (11), we may take (11.a.i.) as exhibiting the "normal" operation of Verb affixation and formulate the problem of providing a principled account of these data in terms of the following three questions.

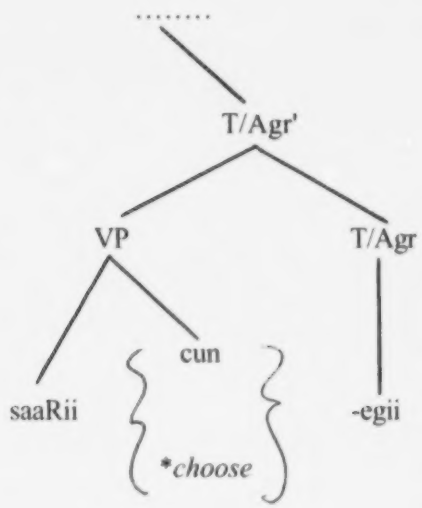
12. a. Why is the derivation of (11.a.ii.) blocked?

b. Why is the derivation of (11.b.ii.) well-formed?

c. Why is the derivation of (11.b.i.) blocked?

Adopting standard assumptions concerning "articulated INFL" (Pollock, 1989), we take the structure of all four sentences in (11) to include a representation in which the VPs *saaRii cun-* and *saaRii choose* are the complements of the functional element Tense/Agreement realized by the suffix *-egii* as indicated in (13).

13.



One logical possibility is that the ill-formedness of (11.a.ii.) falls under the Free Morpheme Constraint -- stated in (3.a.) above. However, the forms in (14) below, which are quite typical, indicate that this constraint does not operate generally in Hindi.

14. Hindi-*English* .

a.	*selfish* -pan	'selfishness'
	widow -pan	'widowhood'
b.	*doctor* -nii	'female judge'
	judge -nii	'female doctor'
c.	*pen* -daan	'pen holder'
	perfume -daan	'perfume bottle'

Apparently what is needed is a constraint that specifically excludes intra-word switches where the bound morpheme involved is an inflectional (rather than derivational) element.

An independently justified condition that would exclude (11.a.ii.) while allowing the examples in (14) is the Functional Head Constraint (FHC) of Belazi *et al.* (1994), stated in (15) below.

15. The Functional Head Constraint.

> The language feature of the complement f-selected by a functional head, like all other relevant features, must match the corresponding feature of the functional head. (Belazi *et al.*, 1994: 228)

The f-selection relation, as characterized by Abney (1987: 56), is the syntactic relation between a functional head and its complement. Given the structure in (13), the FHC excludes the switched form *choose* in (11.a.ii.) while allowing the unswitched *cun-* in (11.a.i.).

Though the FHC accounts for a wide range of data from those language pairs in which it operates -- as the examples in (1), repeated as (16) below, indicate -- examples like those in (17)

from Swahili-English CS nonetheless make it clear that the FHC must be parametrized in some way.

16. English-*Spanish* .

a. (= Belazi *et al.*, 1994, (10)a, (10)c).

i. The professor said *que el estudiante habia recibido una A* .

that the student had received an A.

ii. *The professor said that *el estudiante habia recibido una A* .

b. (= Belazi *et al.*, 1994, (23))

They used to serve *bebidas alcoholicas en ese restaurante* .

drinks alcoholic in this restaurant

'They used to serve alcoholic drinks in this restaurant.'

c. (adapted from Belazi *et al.*, 1994, (26))

*Dance-*amos* *cha-cha* .

-PRES.1.PL

'We dance the cha-cha.'

17. Swahili-*English* (from Myers-Scotton 1993)

a. ...ni- ka- i- *rub* na kitamba

1.SG-then-it-rub with cloth

'...I then rub it with a cloth.'

b. u- na- anza ku- *behave* kama watu wa huko wa- na- vyo- *behave* .

2.SG-NNPST-begin INF-behave as people of there 3.Pl-NNPST-MNR-behave

'You begin to behave as people from there behave.'

c. ...zi- me- *spoil* -iw -a

...3.PL-PERF-spoil -PASS-Indic

'...(they) were spoiled for her.'

In (16.a.i.) the Verb *said* does not f-select its complement because it is not a functional head and the switch to *que....* is permitted whereas in (16.a.ii.) *that* does f-select its complement, thus excluding the switch to *el estudiante.....* In (16.b.) *serve* allows its complement to be switched because it is not a functional element, whereas the ill-formedness of (16.c.) is explained by the mismatch in language feature between the Verb stem and its inflectional suffix where the relevant structure is analogous to that in (13). The examples in (17) show that sentences that are apparently analogous to (11.a.ii.) with a structure like (13) are well-formed for at least one language pair: Swahili-English.

We turn now to question (12.b.) -- why is example (11.b.ii.) well-formed? We propose that the grammar of Hindi includes an operation that inserts the lexical element *kar-* as the carrier of the Tense/Agreement element *-egii* , thereby neutralizing the functional character of *-egii* . This operation, then, acts as a Last Resort to save a derivation that would otherwise be blocked by the FHC -- analogous to Chomsky's independently motivated analysis of the *do* -support phenomenon in English (Chomsky 1991) and in accordance with general conditions on Last Resorts as characterized in (18), however these conditions are ultimately formulated.

18. "...a step in a derivation [e.g., *do* -insertion] is legitimate only if it is necessary for convergence -- had the step not been taken, the derivation would not have converged." (Chomsky, 1993: 32).

Question (12.c.) -- that concerning the ill-formedness of (11.b.i.) -- has a natural answer within Chomsky's (1991) economy framework. Because the derivation of (11.b.i.) is well-

formed without the application of *kar* -insertion, that operation cannot apply in its derivation in accordance with Chomsky's economy conditions on derivations.

Summarizing, the phenomena exemplified by the examples in (11) receive a natural account within the theory of linguistic competence -- Universal Grammar. Unless a more natural account can be found in terms of Myers-Scotton's MLF Model, her strong position that "...Codeswitching utterances everywhere conform to the grammars of their participating languages, subject only to the added constraints of the Matrix Language-Frame Model..." must be revised. The reason is that *kar* -insertion applies specifically in the derivations of CS sentences containing switched main verbs and not in the derivations of monolingual sentences, hence requiring special treatment within the grammar of Hindi for certain CS structures and, unless an equally natural account can be found within the MLF Model, calling into question Myers-Scotton's strong P-approach. We turn now to a possible treatment of *kar* -insertion phenomena in terms of the MLF Model.

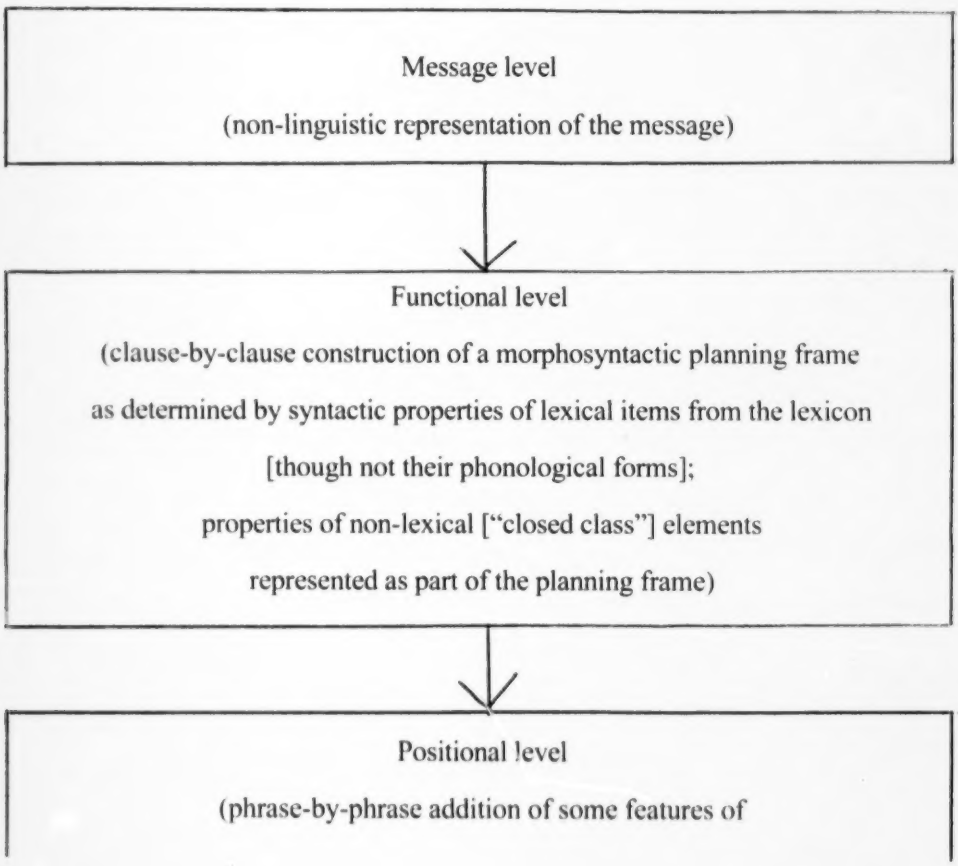
3. *Kar* -insertion phenomena and the MLF Model.

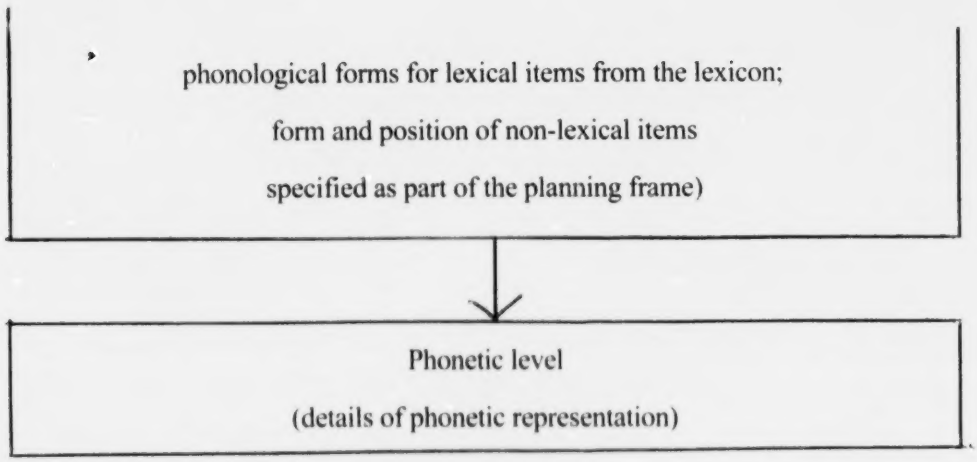
As noted above, one of conceptual advantages of the MLF Model over some alternative approaches to CS is the fact that it is grounded in independently motivated general models of sentence production. We now turn to a brief overview of the major features of such models as a prelude to our discussion of the MLF Model.

Most researchers in monolingual sentence production (in particular Garrett 1988; Levelt 1989) accept a distinction between two levels of morphosyntactic and lexical processing in production as indicated primarily by data consisting of errors in spontaneous speech. The first morphosyntactic level, the "functional level," is the result of mapping a message formulated in a

non-linguistic form into a morphosyntactic "planning frame" including the functional structure of the utterance as determined by the syntactic (though not phonological) properties of the lexical (that is, open-class or content) items selected to encode the message. The planning frame also includes features of all non-lexical (closed-class or system) formatives including certain aspects of inflectional and derivational morphology. The second morphosyntactic level, the "positional level," includes certain features of the phonological forms of lexical items as well as the sequential relations of lexical and non-lexical formatives. What might be called the "standard" theory of (monolingual) sentence production, then, is as represented in (19) below.

19. The "standard" model of sentence production (e.g., Garrett 1990):


Message level
(non-linguistic representation of the message)
Functional level
(clause-by-clause construction of a morphosyntactic planning frame
as determined by syntactic properties of lexical items from the lexicon
[though not their phonological forms];
properties of non-lexical ["closed class"] elements
represented as part of the planning frame)
Positional level
(phrase-by-phrase addition of some features of


phonological forms for lexical items from the lexicon;
form and position of non-lexical items
specified as part of the planning frame)
Phonetic level
(details of phonetic representation)

Briefly, the existence of the functional level is supported by the relative frequency of speech errors such as those in (20) below.

20. a. Older men *choose* to *tend* younger wives.
(intended: Older men tend to choose younger wives.)
b. No one is *taking* you into *talking* a nap.
(intended: No one is talking you into taking a nap.)

The errors in (20) reflect the simultaneous consideration of the switched words for assignment to phrases at the functional level. On the other hand, the frequency of errors like those in (21.a.) below and the virtual non-existence of errors like that in (21.b.) support the view that a morphosyntactic planning frame is established early in the process of production and remains in effect through later stages.

21. a. i. We went to get a *cash check* **-ed**.
(intended: We went to get a check cashed.)
ii. It *wait* **-s to** *pay* .

(intended: It pays to wait.)

iii. He *facilitat* **-ed** *what he was doing* **to** *remove the barricade* .

(intended: He removed the barricades to facilitate what he was doing.)

b. They're just clouds that are be*en* divert*ing* ...

(intended: They're just clouds that are being diverted...)

In (21.a.) the lexical elements are switched while the elements realizing functional categories remain fixed, providing the morphosyntactic frame for the sentence.

Turning now to the specifics of the MLF Model, an important distinction in Myers-Scotton's position is that between content morphemes and system morphemes as listed in (22) below.

22. System Morphemes: quantifiers, possessives, tense/aspect, determiners, complementizers, structurally-assigned agreement, copula, 'do' verbs, possessive 'of', dummy pronominals.

Content Morphemes: verbs, prepositions, nouns, pronouns, adjectives.

The central claim of Myers-Scotton's Matrix Language-Frame Model of CS is represented by the Matrix Language Hypothesis -- stated in (23).

23. The Matrix Language Hypothesis (Myers-Scotton, 1993: 82)

As an early step in constructing ... constituents [containing code switches], the matrix language provides the morphosyntactic frame....

This hypothesis is embodied in two principles: the Morpheme Order Principle -- given under (24.a.) with relevant examples under (24.b.) -- and the System Morpheme Principle, given in (25.a.), with examples in (25.b.).

24. a. The Morpheme Order Principle (Myers-Scotton, 1993: 83)

In ... constituents [containing code switches] consisting of singly-occurring [embedded language] lexemes and any number of [matrix language] morphemes, surface morpheme order (reflecting surface syntactic relations) will be that of the matrix language.

b. Swahili-*English* (Myers-Scotton, 1993: 91)

i. ...*workers* wa-nene sana

fat very

'very fat workers'

ii. *...sana wa-nene workers

25. a. The System Morpheme Principle (Myers-Scotton, 1993: 83)

In ... constituents [containing code switches], all system morphemes which have grammatical relations external to their head constituent (i.e., which participate in the sentence's thematic role grid) will come from the matrix language.

b. Swahili-*English* (adapted from Myers-Scotton, 1993: 109)

i. Yule mtu ni [mtoto wa *boss*].

that person is child of

'That person is the boss's child'

ii. *...mtoto *of (the) boss* ...

*...mtoto *of* bwana ...

boss

**...the boss's* mtoto...

The Morpheme Order and System Morpheme Principles allow the free occurrence of single lexical morphemes from the embedded language so long as they occur in the order required by the planning frame determined by the structure of the matrix language. As Myers-Scotton notes, however, there are many cases where the occurrence of embedded language forms predicted by these two principles is precluded. In order to account for such cases, Myers-Scotton introduces the Blocking Hypothesis, stated under (26.a.) with further specification under (26.b.).

26. a. The Blocking Hypothesis (Myers-Scotton, 1993: 120-121)

In ... constituents [containing code switches], a blocking filter blocks any embedded language morpheme which is not congruent with the matrix language with respect to three levels of abstraction regarding subcategorization.

b. A given embedded language form is not congruent with its corresponding matrix language form if:

i. one of the two forms is a system morpheme and the other is a content morpheme.

ii. the two forms do not match with respect to thematic role assignment.

iii. the two forms do not match with respect to discourse or pragmatic functions.

Of particular relevance to an account of the *kar* -construction within the Production Approach are forms from the embedded language that Myers-Scotton refers to as "bare forms" -- a typical example of which appear under (27).

27. Bare forms -- Swahili-*English* (adapted from Myers-Scotton, 1993: 125-126)

a. ...wa- shawek- w- a <u>*cell*</u> .

3.PL-already put-PASS-INDIC

'...they have already been put in cells [i.e., in jail]

b. *...wa-shawek-w-a *cell* -ni.

-LOC.

c. *...wa-shawek-w-a *in cells* .

In (27.a.), the English form *cell* is a bare form in Myers-Scotton's sense. Its expected form according to the System Morpheme Principle is given in (27.b.) where it carries the Swahili Locative suffix *-ni* . The corresponding English form is given in (27.c.). Myers-Scotton attributes the occurrence of bare forms in general to non-congruence between the embedded language form and the matrix language frame. In this particular case, she hypothesizes that there is a crucial non-congruence in selection between English *in* and Swahili *-ni* : "...the problem is that *-ni* picks out its head as a general locative noun while *in* carries more specialized locative content." Since the Matrix Language-Frame Model simply excludes embedded language non-lexical material, bare forms do not violate its principles and thus constitute a "compromise" solution to non-congruence between content morphemes from the embedded language on one hand and elements of the frame from the matrix language on the other.

Let us now consider the questions in (12) within the MLF framework. Because the well-formed CS sentence (11.b.ii.) contains a bare embedded language form -- that is, the form *choose* -- we might expect that an account in terms of the notion of congruence would be possible and, in particular, that it is the expression of Tense and Agreement that is non-congruent between Hindi and English. However, the basis for this non-congruence is unclear. Both the matrix language Tense/Agreement element (Hindi future marker *-egii*) and its presumed corresponding element in the embedded language (English *will*) are system morphemes by Myers-Scotton's characterization, hence not leading to non-congruence on this score. One might argue that the basis of non-congruence is one of order: Because the order of the Tense/Agreement elements with respect to the head of VP differs in the two languages, they

are non-congruent and the bare form results. However, a bare form (with "*kar* -insertion") is well-formed even in cases where the order of system morphemes is shared between matrix Hindi and the embedded English as shown in the Hindi-English sentences in (28) below. (In this case the relevant forms are Hindi *-rahii* and English *-ing* in (28.a.) and Hindi *-tii* and English *-s* in (28.b.).)

28. a. i. merii patnii saaRii *choose* kar-rahii hai
my wife Saree do -ing be.

ii. *merii patnii saaRii *choose* -rahii hai

b. i. merii patnii saaRii *choose* kar-tii hai.
my wife saree do -es is

ii *merii patnii saaRii *choose* -tii hai.
-s

In short, the basis for the presumed non-congruence in these cases is far from obvious.

Turning to the question (12.b.) -- that is, how the well-formed structure with *kar-* might be produced rather than the "normal" form without *kar-* -- Myers-Scotton (1993: 151) writes: "In a production model, at least the outlines of the adjustment [for constructions analogous to the '*kar* -insertion' structure] are relatively easy to envision: they would involve adding special syntactic procedures which would be activated when certain [embedded language lexical items] are accessed in [CS] constituents." In our view, and perhaps in Myers-Scotton's as well, the formulation of principled special procedures that will account for the *kar* -insertion phenomenon is worthy of further detailed discussion.

If Myers-Scotton's special syntactic procedures -- whatever they may be -- are triggered only by the occurrence of an embedded language verb that is non-congruent with its matrix language frame in some way, then question (12.c.) will simply not arise within the MLF framework. We assume this to be the case.

4. Conclusion.

In summary, we have argued that the widely found phenomenon of dummy verbs in CS constructions receives a natural explanation within recent work within the Minimalist Program for linguistic theory -- that is, for the study of grammatical competence -- whereas an account within the MLF Model is problematical. The major implication of this result is that CS is not purely a performance (specifically, a production) phenomenon as has been claimed by Myers-Scotton, but, at least, involves aspects of linguistic competence as well.

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